

EFFECT OF COLUMN SIZE ON THE  
SEISMIC CAPACITY OF ELEVATED  
REINFORCED CONCRETE WATER TANK

AFIQAH AZEERA BINTI AWANG DAMIT

B. ENG (HONS.) CIVIL ENGINEERING

UNIVERSITI MALAYSIA PAHANG



## **SUPERVISOR'S DECLARATION**

I hereby declare that I have checked this project and in my opinion, this project is adequate in terms of scope and quality for the award of the degree of Bachelor of Civil Engineering.

---

(Supervisor's Signature)

Full Name : DR. MOHD IRWAN ADIYANTO

Position : SENIOR LECTURER

Date :



## **STUDENT'S DECLARATION**

I hereby declare that the work in this thesis is based on my original work except for quotations and citations which have been duly acknowledged. I also declare that it has not been previously or concurrently submitted for any other degree at Universiti Malaysia Pahang or any other institutions.

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(Student's Signature)

Full Name : AFIQAH AZEERA BINTI AWANG DAMIT

ID Number : 940724126822

Date :

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AFIQAH AZEERA BINTI AWANG DAMIT

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## LIST OF SYMBOLS

$\delta_u$	Ultimate Displacement
$\delta_y$	Yield Displacement
$f_{cu}$	Concrete Compressive Strength
$f_y$	Yield Strength of Steel
$f_{yh}$	Link Yield Strength
$f'_c$	Specified Concrete Compressive Strength

## LIST OF ABBREVIATIONS

RC	Reinforced Concrete
POA	Pushover Analysis
P	Moment-axial load
M3	Moment-curvature
P-M3	Moment-axial load with moment-curvature
ESRs	Elevated Service Reservoirs
H	Height
B	Width
M <sub>w</sub>	Magnitude
E	Modulus of Elasticity
U	Poisson's Ratio
A	Coefficient of Thermal Expansion
G	Shear Modulus
kN	Kilo newton
LL	Live Load
DL	Dead Load
m	Metre
mm	Millimetre